

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A home appliance control system, comprising:
 - an external Internet network installed outside of a building;
 - an internal ~~Internet~~ network installed inside of the building and connected to said external Internet network via networking equipment;
 - a plurality of home appliances installed in the building;
 - a computing device ~~for setting respective~~ that sets private Internet protocol (IP) addresses and port numbers of said home appliances such that said appliances are connected to said internal ~~Internet~~ network based ~~on the basis of~~ the set private IP addresses and port numbers; and
 - a plurality of communication modules ~~installed respectively in said home appliances~~, each of said communication modules corresponding to one of said home appliances and storing the private IP address and port number of a the corresponding one of said home appliances, set by said computing device, and processing data transmitted and received between said internal ~~Internet~~ network and said corresponding home appliance ~~appropriately~~ to standards of said internal ~~Internet~~ network and said corresponding home appliance.

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2. (Currently Amended) The home appliance control system as set forth in claim 1, wherein said computing device has a public IP address ~~for enabling~~ that enables access from said external Internet network.

3. (Currently Amended) The home appliance control system as set forth in claim 1, wherein each of said communication modules include:

a data storage unit ~~for storing~~ that stores the set private IP address and port number of said corresponding home appliance;

an interface storage unit ~~for storing~~ that stores a user interface appropriate to a control and state observation of said corresponding home appliance having said private IP address and port number stored in said data storage unit; and

a data processor ~~for converting/processing~~ that converts and processes data transmitted and received between said internal ~~Internet~~ network and a main controller of said corresponding home appliance appropriately to standards of said internal ~~Internet~~ network and main controller.

4. (Original) The home appliance control system as set forth in claim 3, wherein said user interface stored in said interface storage unit is configured to be sent to said computing device such that a user controls said corresponding home appliance through said computing device.

5. (Original) The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java program executable in said computing device.

6. (Currently Amended) The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java program executable in a personal computer of ~~the~~ a user when ~~said the~~ user gains access to said computing device through said external Internet network.

7. (Currently Amended) A method for controlling home appliances, comprising ~~the steps of:~~

a) installing a plurality of communication modules in the home appliances, ~~respectively,~~ each of ~~said the~~ communication modules storing a set private IP address and port number of a corresponding one of ~~said the~~ home appliances and processing data transmitted and received between an internal ~~Internet~~ network of a building in which ~~said the~~ home appliances are installed and ~~said the~~ corresponding home appliance ~~appropriately to standards of said the internal Internet network and said the~~ corresponding home appliance;

b) setting the private IP addresses and port numbers of ~~said the~~ home appliances with a control device, ~~respectively;~~ and

c) controlling each of ~~said the~~ home appliances with the set private IP addresses and port numbers through a user interface ~~appropriate to the appliance control.~~

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8. (Currently Amended) The method as set forth in Claim 7, further comprising the ~~step of:~~

~~d) if a user desires to gain access to a specific one of said home appliances to control it,~~ determining whether ~~the~~ a user has a code valid to control ~~the~~ a specific home appliance when the user desires to gain access to control the specific home appliance;

whereby ~~said step c) is performed~~ the user selectively controls the home appliances through the user interface only when ~~said~~ the user has the valid code.

9. (Currently Amended) The method as set forth in Claim 7, further comprising the ~~steps of:~~

~~d)~~ connecting ~~said~~ the home appliances to ~~said~~ the internal Internet network if the private IP addresses and port numbers of ~~said~~ the home appliances are set ~~at said step b); and~~

~~e)~~ determining whether ~~each of said~~ the home appliances ~~has~~ have been connected to ~~said~~ the internal Internet network.

10. (Currently Amended) The method as set forth in Claim 7, wherein ~~said step c)~~ includes the step of controlling the home appliances through the user interface comprises:

~~e-1)~~ storing ~~said~~ the user interface appropriate to the appliance control in each of ~~said~~ the home appliances and sending the stored user interface to a user desiring the appliance control, such that ~~it~~ the user interface is executed by the user.

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11. (Currently Amended) The method as set forth in Claim 10, wherein ~~said step e)~~ further includes the steps of controlling the home appliances through the user interface further comprises:

e-2) determining whether a private IP address and port number contained in home appliance control information inputted through ~~said the~~ user interface ~~is the same as corresponds to~~ the set private IP address and port number of each of ~~said the~~ home appliances;

e-3) transferring a user's control command inputted through ~~said the~~ user interface to a specific ~~one of said~~ home appliances ~~if~~ appliance when the private IP address and port number of ~~said the~~ control information ~~is the same as corresponds to~~ the set private IP address and port number of the specific home appliance; and

e-4) controlling only ~~said the~~ specific home appliance in response to the transferred control command.